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Comment on Fiscal Uncertainty and How to Deal with It by Alan Auerbach[1]

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Introduction

Consideration of the future fiscal position of the federal government is a natural part of household and firm planning for the future. Thus it is good that we get high quality projections, including recognition of uncertainty. Baseline projections also serve to alert the federal government of the track we may be on and are used as the economic setting for analyses of legislative proposals. Alan Auerbach has made clear the large size of the uncertainty about the total federal baseline. Relative to its role for informing the government, I wish he had focused a bit more on the uncertainty excluding future government actions.

Whether done through stochastic projections or multiple projections, conveying the presence of uncertainty is important. While it is hard to place probabilities on alternative projections, the alternative probabilities that come with stochastic models are themselves subject to model uncertainty as well as the possible presence of nonstationarities in the data used to parameterize the models for Monte Carlo simulations. I am glad to see both methods employed. Beyond the inherent limitations in these descriptions of uncertainty, I do not think we understand how to convey uncertainty in a way to effectively impact either public perceptions or the legislative process. Thus I agree with Chuck Manski in his May 2014 paper:

> An open question is how agency communication of uncertainty would affect policymaking and private decision making. We now have little understanding of the ways that users of official statistics interpret them. … We know essentially nothing about how

[1] *This comment has been prepared for the Hutchins Center on Fiscal and Monetary Policy at the Brookings Institution and will be presented there on December 15, 2014.*

> decision making would change if statistical agencies were to communicate uncertainty regularly and transparently. (Manski, 2004)

While exploring ways to present, analyze and discuss uncertainty, it would be unfortunate if an expansion of the discussion of uncertainty were to end up undercutting the role of a central projection in disciplining somewhat the legislative process.

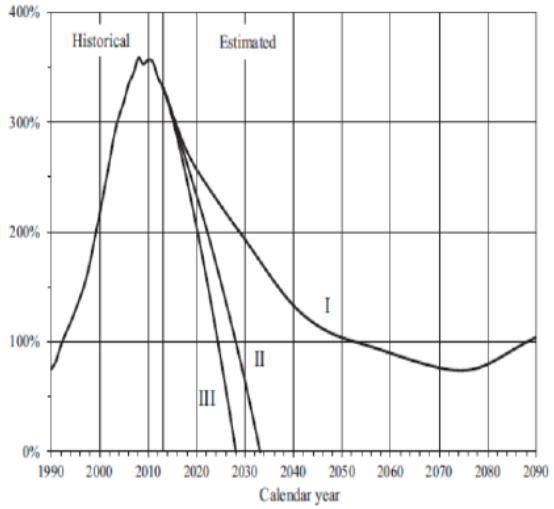
In addition to considering the overall budget, we have uncertainty at the level of individual programs. I think this is important since I view attention to and actions at the program level (or the level of a related set of programs), to be more likely to result in good legislation than actions at highly aggregated levels, involving spending across many programs or overall budget balance conditions.

I plan to focus my remarks on the example of Social Security, for which the projections have considerable uncertainty whether viewed through the lens of multiple projections (Figure 1), or that of a specific stochastic model (Figure 2). The presence of large uncertainties raises (at least) three issues in current policies: (1) the appropriate extent and design of automatic adjustments, (2) the use of legislation for future implementation, and Alan's prime topic, (3) the case for additional savings in response to higher uncertainty.

Figure 1.

Long-Range OASI and DI Combined Trust Fund Ratios Under Alternative Scenarios

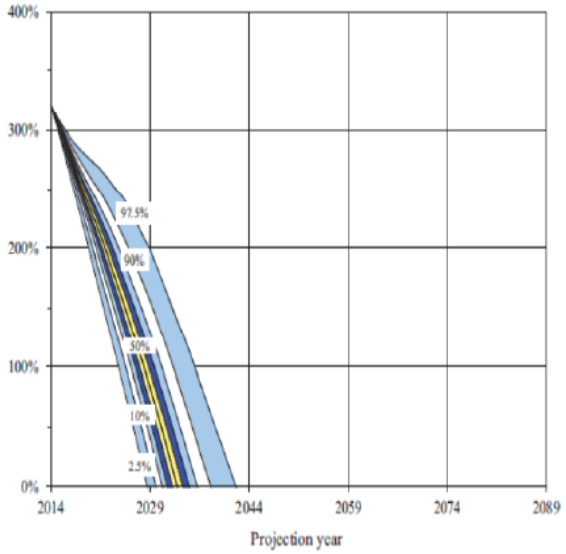
(Asset reserves as a percentage of annual cost)



Source: The 2014 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.

Figure 2.

Long-Range OASI and DI Combined Trust Fund Ratios From Stochastic Modeling



Source: The 2014 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.

I. Social Security

Social Security has automatic adjustments for price and wage increases. Some other countries have gone farther in their national pension systems. Notional Defined Contribution systems, the one most studied being Sweden's, adjust benefits for life expectancy at retirement and usually adjust to its measurement automatically. The adjustment, based on mortality data, covers both the benefit level at the earliest entitlement age and the benefit increase for a delay in claiming. Germany adjusts benefits in payment for the old-age-dependency ratio.[2] And Sweden has an adjustment, unfortunately poorly designed, of current and future benefits for projected financial imbalance (Barr and Diamond, 2011). Uncertainty present in projections is obviously important for the value of having indexed automatic changes. Using automatics for national pension systems seem very good to me and I would like to see Social Security adjust benefit levels somewhat for life expectancy (Diamond and Orszag, 2005).

Second is the issue of legislation now of future changes in light of anticipated future outcomes and their uncertainty. As Alan made clear, his discussion of uncertainty and savings has room for current legislation of future changes: "Government saving here refers to government action that directly reduces the fiscal gap in terms of the extent to which future tax increases or spending reductions are needed to satisfy the government's long-term budget constraint." And: "An implication of this approach is that government saving need not include any changes in current taxes or spending. Future changes adopted or otherwise made credible today could have a similar effect, not only [on] the government's long-run fiscal situation, but also on individual behavior as well."

In general, some legislated future changes have been and will be mostly seen as likely to be undone and indeed some have been repeatedly delayed, as we have seen with some Medicare changes. But other legislated future changes seem to have good sticking power, and Social Security is a prime example. The history from the beginning of Social Security to 1990 included legislated future tax rate increases. While some were delayed, none were repealed. And the 1983 legislation advanced some tax rate increase dates. The increase in the age for full benefits in the 1983 legislation has run into no significant headwinds. In terms of Alan's paper, legislated passage of future changes to Social Security are likely to "count" for his calculation. Currently, CBO does its baseline on the premise that all of scheduled benefits will be paid, without any

[2] For details about many countries, see Barr and Diamond (2010).

change in the dedicated revenues, despite the fact that Social Security could not pay beyond its accumulated dedicated revenues under current legislation. This budgetary assumption also applies to its extended alternative fiscal scenario. There is a strong expectation that Social Security will change before across the board benefit cuts would otherwise occur. But I see no reason to think the change will be completely through debt-financed additional funds provided to Social Security. The projections in Auerbach and Gale (2014) use the same assumption.

Instead of waiting for the Social Security crisis to be imminent, earlier tax increases and some benefit cuts for additional cohorts are possible through earlier legislation with earlier implementation. It is understandable that the political process likes to delay actions with highly visible unpleasant consequences for many people. Although it has risks, I think it would be good in the upcoming election period for the campaign process to press candidates for some specificity in how they would address the overall Social Security imbalance, particularly their stances on the mix of additional revenues and decreased (scheduled) benefit levels.

II. Additional Savings

And third I turn to Alan's focus on the case for additional savings in response to the presence of more uncertainty. While not necessarily disagreeing with the paper's conclusion, I want to identify some research needs in going from the analysis of individuals to an analysis of government. More research may contribute to identifying the circumstances in which the argument is valid and to the issues of how and when to save more. In his section Responding to Fiscal Uncertainty, Alan starts with observations on the literature on individual choice with conventional optimized behavior: "under reasonable assumptions about individual preferences, uncertain future earnings should induce more saving." A footnote gives details: "Formally, greater uncertainty leads to an increase in precautionary saving if the third derivative of the individual's utility function is positive, as would be the case for preferences exhibiting constant relative risk aversion." Alan notes that there are complications, for example uncertain returns to savings, so that more savings brings more uncertainty with it.

Alan connects this literature on individual choice to government actions: "Since government decisions affect and should be guided by the well-being of individuals, much of the basic intuition regarding dealing with uncertainty and the determinants of precautionary saving carry over from the analysis of individual saving decisions." From this parallel, he concludes that: "If

baseline forecasts tell us that we need to save, then uncertainty about these forecasts tells us that we need to save more and greater uncertainty that we should save still more."

My concern about how comfortable we should be with using this parallel comes from the modeling of individuals as fully and continuously optimizing and then extending logic based on that assumption to the behavior of Congress. Indeed, Alan himself has taken limitations in the process of govnerment actions to be a source worth exploring for insights into policy analysis. Together with Kevin Hassett, Alan has built a model where legislative choice is not continuously optimizing (Auerbach and Hassett, 2007) in order to "explore the impact of policy stickiness (specifically, a major reform will preclude future reforms for a generation) on optimal long-run fiscal policy. Under such circumstances, entitlement reforms exhaust a valuable option to move in the future." Beyond just a delay in future legislation, I think a relationship between the timing of addressing projected fiscal difficulties and the nature of such legislation is important. So the level of uncertainty plausibly plays a significant role in normative evaluation of the choice of timing. Thus in some circumstances it may turn out that more uncertainty about projections is a reason to delay legislative action and so to save less currently.

Looking again at the individual literature, Amador, Werning, and Angeletos (2006), is an example moving beyond simple utility optimization. The paper studies "the optimal trade-off between commitment and flexibility in a consumption–savings model. Individuals expect to receive relevant information regarding tastes and thus they value the flexibility provided by larger choice sets. … they also expect to suffer from temptation, with or without self-control, and thus they value the commitment afforded by smaller choice sets. The optimal commitment problem we study is to find the best subset of the individual's budget set."

Indeed concern about what Congress will do goes beyond recognizing that the issue may not be addressed again for a substantial time. In sum, I think we need considerably more work to clarify the link between uncertainty in projections and the level of government savings, as well as the timing of preferred actions to increase savings.

An issue that should be addressed is the role in the economy of private savings. If, consistent with the initially assumed result, people do save more in response to a projection of increased uncertainty of possible future taxes, then for the question of current government savings, we need to explore the relative roles of public and private savings, of more taxes and/or less spending now for a shift in the distribution of possible future taxes and/or spending. And

modelling that issue should explore the extent and quality of market and government insuring of individual risks.

III. Taxes

Since it is a hobby horse of mine, I want to close by commenting on consideration of the role of additional deadweight burdens associated with additional taxes, which obviously is part of the government savings issue. My hobby horse is that one should not consider the added distortions from more progressive taxation without also considering the improved income distribution that may be associated with the particular choice of taxes.

Assume we could finance government in full by a poll tax – a lump-sum tax that is the same for everybody. Then, under the usual assumptions, there would be no deadweight burdens from taxation. If we choose a different, indeed distorting, tax structure in order to have a better income distribution, then, with that being a rational choice, the increase in deadweight burden is more than offset by the improvement in income distribution. Any analysis considering deadweight burdens while ignoring income distribution is biased.

Of course, it is not possible to finance the federal government today from a poll tax since many people could not earn enough to pay that level of taxes - some distortion from taxation is necessary. A starting place for framing an approach to this benefit-cost issue is an unpublished chapter in Emmanuel Saez's 1999 thesis. This chapter "derives the non-linear income tax schedule which minimizes deadweight burden without any regard for redistribution. The features of this problem are shown to be equivalent to the Mirrlees' optimal income tax problem. The tax schedule minimizing deadweight burden is an optimal income tax schedule in which the government applies particular marginal welfare weights at each income level. In the case of no income effects, these marginal welfare weights are the same for everybody."

If we choose to have more distortion than the deadweight burden minimizing level in order to have a better income distribution, this increase in distortion is part of an increase in welfare, not a decrease. So to discuss the distortions associated with the level of spending and also the timing of responses for financing it, we need to distinguish the necessary increases in distortions and the additional distortions together with income distribution improvements that together enhance social welfare. This becomes more complex with changes in spending and changes in taxes, both of which come from different Congresses.

Beyond just the need for distortions to finance spending, we have two public finance second-best welfare theorems that are quite different from first-best considerations.

> With asymmetric information and income distribution concerns: Under the usual assumptions, generically, the *absence* of distorting taxes indicates a failure to achieve a social welfare optimum.
>
> With asymmetric information and individual uncertainty: Under the usual assumptions, in the *absence* of distorting implicit taxes there is not a social welfare optimum.

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